

## Technical Data Sheet

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**Properties:** AKEMI® UV-Filler is a stone filler based on unsaturated polyester resins dissolved in styrene, hardening by ultraviolet radiation.

The product is characterized by the following qualities:

- 1-component product for thin layers (< 5 mm)
- very fast surface drying (already after 10 - 20 seconds of radiation)
- good penetration into small fissures, sandy and clayey areas
- variable application due to different consistencies and colours
- hardening is also possible by sunlight

**Application Area:** AKEMI® UV-Filler is mainly used for working natural stone slabs in polishing line plants for filling small holes, fissures and strengthening porous areas without having to add a hardener component. Due to various consistencies available (extra liquid, liquid, gel-like) and different colours (transparent, umbra) everyone can choose the most suitable quality. UV-Filler contains a special additive which allows thicker layers or cavernous holes to harden, by adding AKEMI® hardening powder. Yet, the hardening time is still more than 8 hours when adding 0.5 - 1% of hardening powder.

**Technical Conditions:** Special UV light sources with a wavelength of 365 - 420 nm are necessary for the hardening process:

1. Fluorescent tubes
  - Philips TL/10R (40 - 100 W, different sizes)
  - Osram UVA (40 - 80 W, different sizes)
2. UV spots (combination of UV- and IR-radiation)
  - Philips MLU (300 W)
  - Osram Ultra-Vitalux (300 W)
3. Metal halide lamps
  - Hönle Uvaspot 400 T

The best light output is achieved when using metal halide lamps or UV-spots, their effect in depth and speed of hardening is better than that of fluorescent tubes.

**Instructions for Use:**

1. The surface to be treated must be clean, dry and free from dust.
2. To fill bigger holes or cavernous holes, 0.5 - 1% of AKEMI® hardening powder should be added.
3. Apply the required quantity of AKEMI® UV-Filler with a spatula.
4. Expose the filled areas to UV-radiation:
  - a) Fluorescent tubes: for at least 2.5 - 5 minutes
  - b) UV spots or metal halide lamps: for at least 1 - 2.5 minutes
5. The filled slabs can then be ground and polished.
6. Tools can be cleaned with AKEMI® Nitro-Thinner.

**Special Notes:**

- For professional use only.
- Use afin® Liquid Glove to protect your hands.
- When filling thicker layers (> 5 mm) without adding hardening powder, there will be no hardening at the bottom of the layer → permanent smell of styrene, poor adhesion, discolouring to green.
- Poor adhesion on humid surfaces.
- In case of insufficient radiation time hardening will be insufficient → no stability and thus separation of the filler during grinding or polishing procedure as well as discolouring to green possible.

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- Once hardened, the filler can no longer be removed by solvents. Removal is only possible mechanically or by higher temperatures (> 200°C).
- Being worked properly, the hardened adhesive is generally recognized as not injurious to health.
- The hardened filler tends to yellow.
- Within the EU: subject to the self-service prohibition regulation and shall only be sold by specialized sales outlets.
- For proper waste disposal the container must be completely emptied.
- Recycling in accordance with the guidelines of EU Decision 97/129 EC on the Packaging Directive 94/62/EC.

**Technical Data:**

## Colours:

UV-Filler extra liquid: transparent yellowish  
UV-Filler Transparent liquid: transparent yellowish  
UV-Filler Transp. L-Special: transparent yellowish  
UV-Filler Umbra liquid: transparent yellow-brownish  
UV-Filler Umbra: transparent yellow-brownish  
UV-Filler Umbra L-Special: transparent yellow-brownish

Density: 1.13 -1.15 g/cm<sup>3</sup>

## Working time / min.:

- a) without hardening powder at 20°C:  
at room temperature unlimited (w/o radiation)  
b) 0.5 - 1% hardening powder at 20°C:  
approx. 8 hours (w/o radiation)

**Storage:**

If stored in dry and cool condition (5-25°C/41-77°F) in its closed original container at least 12 months from production.

**Health & Safety:**

Read Data Sheet before handling or using this product.

**Important Notice:**

The above information is based on the latest stage of development and application technology. Due to a multiplicity of different influencing factors, this information – as well as other oral or written technical advises – must be considered as non-binding hints. The user is obliged in each particular case to conduct performance tests, including but not limited to trials of the product, in an inconspicuous area or fabrication of a sample piece.

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